

ELEMENTARY FUNCTIONS: Math 113, Dr. Strunk, Math 113-01-101, strunk21432**I. Contact Information**

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AIRW 351

Course ID for MyMathLab: strunk21432, **Zipcode 71209**

II. Course Prerequisites/Corequisites

A grade of C or better in Math 093 or ACT 21+

III. Course Description

This is a pre-calculus course emphasizing functions of algebraic, trigonometric, and transcendental nature. This course is designed for those students who intend to enroll in calculus.

IV. Course Objectives and Outcomes

The goal of Math 113 is to prepare you for Calculus. The material presented should be studied seriously so as to avoid confusion later. Many of the topics in Math 113 will appear again later in Calculus, and it will be assumed that you have mastery of these topics. Material on the **Difference Quotient**, **exponential** and **logarithmic** functions, basic **trigonometric function properties**, and setting up the basic equations for **story problems** will be required for success in Calculus, and should be mastered.

V. Course Topics

We will cover selected material from chapters 1-6 of *Blitzer Pre-calculus Essentials 3rd edition*. This material includes **functions and graphs** (ch. 1), **polynomial and rational functions** (ch. 2), **exponential and logarithmic functions** (ch. 3), **trigonometric functions** (ch 4.), **analytical trigonometry** (ch. 5), and limited topics from chapter 6, including but not limited to the **Law of Sines** and the **Law of Cosines**.

VI. Instructional Methods and Activities

Your grade will be based on online homework through the Course Compass system, quizzes, tests, and a final exam. Attendance is mandatory.

VII. Evaluation and Grade Assignment

Homework (100 points): Homework will be assigned on the Course Compass system, with extra recommended problems assigned from the textbook. I will drop a small number of homework (to be determined). No late homework will be accepted.

Quizzes (100pts): I will give in-class quizzes. The questions may be taken from the extra recommended problems. Each will be worth 10 points. I will drop a small number of quizzes (to be determined). No make up quizzes will be given.

Tests (400 points): There will be four 100 point tests. Before each exam there will be an in-class review. You may use graphing calculators on the exam but all programs on your calculator must be approved by the professor before hand. *Unapproved programs used during a test will be considered as an attempt to cheat.* The dates given below are approximate and open to change.

Test 1: February 8th.

Test 2: March 3rd.

Test 3: March 29th.

Test 4: May 3rd.

Final Exam (200 points): Monday May 10, 8am.

Grades: By point totals

A	720 – 800 points
B	640 – 719 points
C	560 – 639 points
D	480 – 559 points
F	0 – 479 points

Undergraduate mid-term grades will be posted on-line for students to view via Arrow. Mid-term grades indicate a student's status at mid-semester only and do not indicate the final performance outcome of a student.

VIII. Class Policies and Procedures

At a minimum, all policies stated in the current ULM *Student Policy Manual & Organizational Handbook* should be followed (see <http://www.ulm.edu/studentpolicy/>). Additional class policies include:

Textbook(s) and Materials: Blitzer Pre-calculus Essentials 3rd edition, a Course Compass log in, and a scientific calculator.

Calculator: Any non-programmable, 2-line display, scientific calculator (TI-30X II S (2-line display) is strongly recommended).

- Graphing calculators may not be used during quizzes and exams, and also in the Math Resource Center (Airway 207).

Calculator sharing and cell phone calculators will be not permitted during exams.

A. Attendance Policy: Attendance is mandatory and will be taken each period.

B. Make-up Policy: If you miss a test due to an excused absence, I will use your final exam score to assign you a grade for that test. This only applies to those who did not take a test, not to those who are dissatisfied with a test score. There are no make up quizzes, nor is late homework accepted.

C. Academic Integrity: Faculty and students must observe the ULM published policy on Academic Dishonesty (see Page 4 in ULM *Student Policy Manual* -- <http://www.ulm.edu/studentpolicy/>).

D. Course Evaluation Policy: At a minimum, students are expected to complete the on-line course evaluation.

E. Student Services: Information about ULM student services, such as Student Success Center (<http://www.ulm.edu/cass/>), Counseling Center (<http://www.ulm.edu/counselingcenter/>), Special Needs (<http://www.ulm.edu/counselingcenter/special.htm>), and Student Health Services, is available at the following Student Services web site <http://www.ulm.edu/studentaffairs/>.

F. Emergency Procedures: In event of an emergency, please contact the instructor by office phone or email.

IX. Tentative Course Schedule

Feb.	18	20	Apr.	15	17
		Graphs/ Functions		Logarithmic Functions	Log. Laws/ Exp. And Log. Equations
	25	27		22	24
	Graphs/ Functions	Linear Functions/ Slope		Exp. Growth/ Angles	Right Angle/ Unit Circle
	1	3		29	31
	Transformations/ Combinations	Composition/ Inverses		Exam 3	Trig. Functions
	8	10		5	7
	Exam 1	Distance, Midpoints, Circles/Modelling		12	14
Mar.	15	17	May	Sine & Cosine Graphs/ Inverse Trig	Applications of Trig.
	22	24		19	21
	Complex Numbers/ Quadratics	Polynomial Functions		Sum, Diff., Double, Half Angle Formulas	Trig. Equations
	1 Midterm	3 Midterm		26	28
	Division/ Factoring/ Zeroes	Exam 2		Law of Sines	Law of Cosines
	8 Midterm	10 Midterm		3	5
	Rational Functions	Inequalities/ Exponentials		Exam 4	Review

